

Radio Frequency Detection/Collection System

A portable system that is capable of providing accurate, timely, and quantitative detection and measurements of unknown, dynamic, and potentially harmful (to sensitive electronic circuits) RF sources.



ITT

Engineered for life

Radio Frequency Detection/Collection System (RFD/CS)

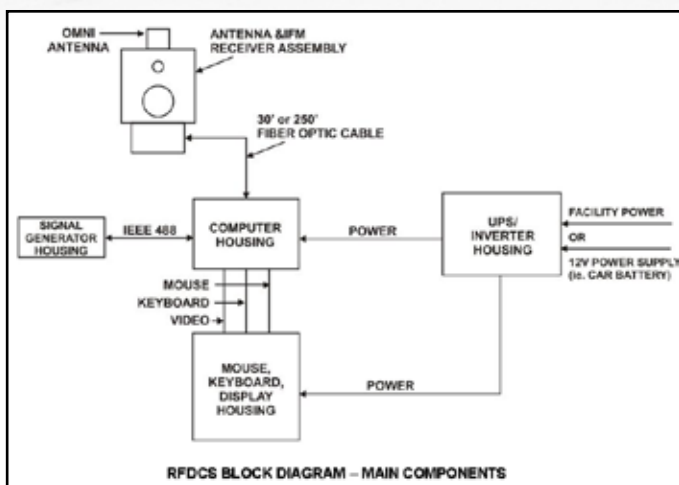
The Radio Frequency (RF) Detection/Collection System (RFD/CS) is a portable system that is capable of providing accurate, timely, and quantitative detection and measurements of unknown, dynamic, and potentially harmful (to sensitive electronic circuits) RF sources. It can be used in three distinct modes of operation - ground-fixed, ground-mobile (i.e. operable inside a standard passenger minivan), or airborne-mobile mode. The RFD/CS can also operate in two distinct states - manual/attended or automatic/unattended. Familiar Microsoft Windows-based Graphical User Interface (GUI) allows ease of use for all experience levels of computer users. The RFD/CS makes extensive use of available Commercial-Off-The-Shelf (COTS) components, including a Global Positioning System (GPS), electronic compass, Uninterruptible Power Supply (UPS), and a 12-volt power inverter.

System Specifications

- Frequency Range: 500MHz – 18GHz
- Frequency Accuracy: +/-0.5 percent
- Field Strength Accuracy: +/-2.5 dB
- Direction Finding Accuracy: +/-10°
- Receive Antenna: Broad-band Omni-directional antenna (500MHz – 18GHz)
- Direction Finding Antennas: Four (4), 500 MHz – 2GHz
Four (4), 2GHz – 18GHz
Two (2) Instantaneous Frequency Measurement (IFM) receivers (one low band, one high band)

Features

- Detect and monitor signals anywhere in the RF spectrum spanning 500MHz to 18GHz
- User programmable signal strength threshold levels
- Can be reconfigured from one operating mode to another in one hour or less
- Can support operations in less than 10 minutes from a cold start or following a power outage
- Built in Global Positioning System (GPS) receiver, Electronic Compass, Uninterruptible Power Supply (UPS), power inverter
- Remote paging capability - can notify personnel if a signal violates pre-assigned threshold levels
- Each component portable by no more than two persons
- Computer housing has built in 10/100 Base - T Ethernet hub allowing system to be connected to standard network for data sharing
- Windows NT 4.0 Operating System
- Microsoft Office compatible violating signal database created in real-time that can be loaded into Excel for post-test data reduction



ITAR Exemption 22CFR125.4(b)(13), OSR, Approved for Public Release 05-S-1180